

Product datasheet for **TP723731**

IL4 (NM_000589) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human interleukin 4 (IL4), transcript variant 1
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	Human IL-4, the region of His25-Ser153, from gene Accession# NM_000589
Tag:	Tag Free
Predicted MW:	14.9 kDa
Concentration:	lot specific
Purity:	Purity is >95%, as determined by Coomassie stained SDS-PAGE.
Buffer:	PBS, pH 7.2 (0.22 µm filtered).
Bioactivity:	The ED50 is 0.2 - 0.6 ng/ml, corresponding to a specific activity of 1.65 - 5 x 10 ⁶ units/mg, determined by the dose dependent stimulation of TF-1 cell proliferation.
Endotoxin:	Less than 0.01 ng per µg protein as determined by the LAL method
Storage:	Store at -80°C.
Stability:	Unopened vial can be stored between 2°C and 8°C for up to 2 weeks, at -20°C for up to 6 months, or at -70°C or below until the expiration date. Aliquots can be stored between 2°C and 8°C for up to one week and stored at -20°C or colder for up to 3 months. Avoid repeated freeze/thaw cycles.
RefSeq:	<u>NP_000580</u>
Locus ID:	3565
UniProt ID:	<u>P05112</u>
RefSeq Size:	921
Cytogenetics:	5q31.1
RefSeq ORF:	459
Synonyms:	BCGF-1; BCGF1; BSF-1; BSF1; IL-4


[View online »](#)

Summary:

The protein encoded by this gene is a pleiotropic cytokine produced by activated T cells. This cytokine is a ligand for interleukin 4 receptor. The interleukin 4 receptor also binds to IL13, which may contribute to many overlapping functions of this cytokine and IL13. STAT6, a signal transducer and activator of transcription, has been shown to play a central role in mediating the immune regulatory signal of this cytokine. This gene, IL3, IL5, IL13, and CSF2 form a cytokine gene cluster on chromosome 5q, with this gene particularly close to IL13. This gene, IL13 and IL5 are found to be regulated coordinately by several long-range regulatory elements in an over 120 kilobase range on the chromosome. IL4 is considered an important cytokine for tissue repair, counterbalancing the effects of proinflammatory type 1 cytokines, however, it also promotes allergic airway inflammation. Moreover, IL-4, a type 2 cytokine, mediates and regulates a variety of human host responses such as allergic, anti-parasitic, wound healing, and acute inflammation. This cytokine has been reported to promote resolution of neutrophil-mediated acute lung injury. In an allergic response, IL-4 has an essential role in the production of allergen-specific immunoglobulin (Ig) E. This pro-inflammatory cytokine has been observed to be increased in COVID-19 (Coronavirus disease 2019) patients, but is not necessarily associated with severe COVID-19 pathology. Two alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. [provided by RefSeq, Aug 2020]

Protein Families:

Druggable Genome, Secreted Protein

Protein Pathways:

Allograft rejection, Asthma, Autoimmune thyroid disease, Cytokine-cytokine receptor interaction, Fc epsilon RI signaling pathway, Hematopoietic cell lineage, Jak-STAT signaling pathway, T cell receptor signaling pathway

Product images:
